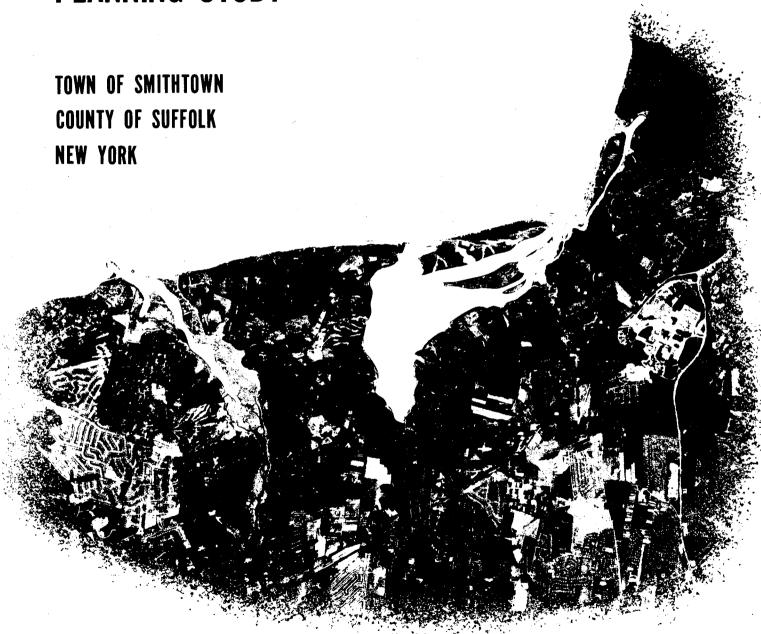
VILLAGE of the HEAD of the HARBOR PLANNING STUDY



SUFFOLK COUNTY PLANNING DEPARTMENT

Village of Head of the Harbor Planning Study

October 1983

Suffolk County Planning Commission H. Lee Dennison Building Veterans Memorial Highway Hauppauge, N. Y. 11788

Suffolk County Planning Commission

Ralph D. Howell, Sr. Acting Chairman

Lucille Mayer Secretary

John F. Luchsinger Robert N. Martin Maurice J. O'Connell Gilbert Shepard Henry Raynor, Jr. Vincent A. Wick George Gohn Stephen M. Jones John F. Kuhn Lloyd L. Lee

Samuel Lester

Lee E. Koppelman - Director of Planning

Participating Staff

Planning

Roy Fedelem Laurie Giffen Robert Higgins Arthur H. Kunz Charles Lind Carol Swick

Cartographics

Thomas Frisenda Carl Lind Anthony Tucci

Clerical

Paula Davantzis

Contents

Page 1	ige
Introduction	1
Population & Housing Characteristics	1
Existing Land Use	3
Zoning	4
Historic District	5
Land Available for Development	5
Future Population	7
Subdivision Regulations	8
Construction Specifications	L1
Recreation & Open Space	L2
Public & Quasi-Public Facilities	L2
Traffic	L3
Water Resources	<u>L</u> 4
Natural Resources	L5
Wetlands	L5
Forest	L6
Old Field	L7
Prime Wildlife Areas	18
Farmlands	8
Soils	19
Watershed Analysis	20
Developmental Constraints	21
Land Suitability	22
Recommendations for The Management and Site Development of Natural	
Resource Areas	23
Other Recommendations	31
Appendix	33

List of Maps

- 1. Existing Land Use
- 2. Zoning
- 3. Land Available for Development
- 4. Water Resources
- 5. Natural Resources
- 6. Soils
- 7. Watershed Analysis
- 8. Developmental Constraints
- 9. Land Suitability
- 10. Recommendations

Introduction

Last year the Planning Commission had a request from the Village of Head of the Harbor to review the development controls, environmental issues and land use patterns and make specific planning recommendations that can be used by Village officials and members of advisory boards.

The following report reviews past development in the Village, current trends and future opportunities within a framework of sound environmental controls. Current characteristics of the people in the Village and data concerning the existing housing stock are used to determine future housing needs, demand for public facilities and anticipated traffic problems.

Population and Housing Characteristics

The following table shows the population growth of the Village from the time it was formed to the present date:

Year	Population
1930	244
1940	255
1950	334
1960	524
1970	943
1980	1,023
1983	1,037

The population doubled after the first 30 years and doubled again between 1960 and 1980.

The 1980 census for the Village shows that the population is generally older than in the County or Town of Smithtown. The median age is 34.8 years and senior citizens total 95 people or 9.3% of the population. There are 84 people classified as widowed/divorced or separated which amounts to 8% of the total. Most of the population is local since 95%

of the over 5 years of age group lived in the Village or in the Nassau-Suffolk area five years ago.

There are 330 housing units and 13 group quarters in the Village. Only four are classified as seasonal and ten of the year-round units are vacant which results in a 3% vacancy rate. Owner-occupied units comprise 267 units and renter 49 or 12% of the total year-round units. The rental units had a median rental of \$418 per month. The median value of the owner-occupied houses was \$114,900 which places the Village in the top 50 communities on Long Island in terms of housing cost. One-third of the houses were in the \$100-150,000 range.

There is an average of 3.2 persons per unit in the Village which is slightly below the County average. One and two-person households total 137 or 43% of all households. The generally small household sizes contrast sharply to the large size of the existing housing units. There are 279 homes with 6 or more rooms which represents 83% of the Village's housing stock.

The residents of the Village had a median family income of \$41,846 in 1979. This figure places the Village as the fortieth most affluent on Long Island. The median household income from the same census data was \$39,391. Another indicator of affluence that has implications for projections of traffic volume is the ownership of vehicles. Forty percent of the occupied housing units in the Village have three or more vehicles per unit.

Census records also provide data on water supply. There were 93 housing units connected to public or private water systems. Private wells served 235 units.

Existing Land Use

Land use in Head of the Harbor Village is almost entirely those uses permitted under residential zoning since the entire Village is residentially zoned. Land use was identified using 1980 aerial photographs followed by a field survey in the spring of 1983. There are 1,632 acres or 2.55 square miles of land in the Village. A tabulation of land uses can be found on Table 1, and a visual presentation is made on the map titled "Existing Land Use".

Over half of the Village area is used residentially with an average developed residential lot being 2.7 acres. There are no high density residential areas and less than 3% of the residential land is medium density, which is more than one but less than five dwellings per acre. One-third of the residential land is occuped by estates.

Almost a fifth of the land is actively farmed. Most of this is along Fifty Acre Road and Route 25A. The Suffolk County Farmland Preservation Program has purchased development rights to 45 acres along Shep Jones Lane. In Table 1 this parcel is in the preserved category since it cannot be developed. The remaining farmland can be subdivided for housing.

There are 276 acres of vacant land which is one-sixth of all the land in the Village. Just over half of the vacant land is covered by individual lots that cannot be further subdivided. These are scattered throughout the Village. Most of the large vacant lots are located along Shep Jones Lane.

About 9% or 144 acres of Village land is classified as "Conservation and Recreation". This includes 96 acres owned by the Nature Conservancy, wetlands owned by the Village and property owned by the Stony Brook

Foundation and the Stony Brook Community Fund. It also includes the swim and tennis club and three small cemeteries.

The only commercial land use in the Village is a small sewing shop on North Country Road.

Institutional uses account for 27.9 acres of land. This includes churches and parish houses but not vacant church land. It also includes the Harbor Country Day School, the Mills Pond House and the Bay School Music House.

Table 1

Existing Land Use - Head of the Harbor - 1983

					Con				
					serva-				
	Reside	ential	Active	Farmland	tion &	Insti-			
	Low	Medium	Not		Recre-	tu-	Commer-		
Use	Density	Density	Preserved	Preserved	ation	tional	_cial_	Vacant	<u>Total</u>
Acres	853.9	23.4	260.8	45.6	144.4	27.9	0.3	276.1	1,632.4
% of Total	52.3	1.4	16.0	2.8	8.8	1.7	0.0	16.9	100.0

Zoning

The zoning of Head of the Harbor Village is comprised of three residential districts. The major requirements are shown in the following table:

Table 2

	Minimum				Minimum	num <u>Minimum Ground Floor Area</u>			
Maximum Lot			Lot Area	Minimum	Front	One Story	More Than One		
	_ <u>H</u>	eight	(Acres)	Frontage	Yard_	(Sq. Ft.)	Story (Sq. Ft.)		
District	''A''	34 '	2	200'*	100'	2,250	1,750		
District	"A-1"	34 '	2	150'*	75 '	2,250	1,750		
District	"B"	34'	1	150'*	100'	2,250	1,750		

*or 90 continuous feet on the circumference of a turnaround in a subdivision approved by the Village Planning Board.

Nearly all of the Village is zoned for residences on at least two acres of land. The only areas where residences are permitted on one acre or more are south of Route 25A and south of Three Sisters Road.

Historic Districts

Head of the Harbor Village has a rich history as evidenced by the book Fifty Years 1928-1978 Head of the Harbor, Suffolk County, Long Island, compiled by Barbara Ferris Van Liew and published by the Village of Head of the Harbor in 1978. The rural nature of the Village has been preserved and many historic structures exist in their original settings. Presently, there are three historic districts in the Village bordering North Country Road (Route 25A). (See Zoning Map).

Local Law No. 1 of 1965 authorized the Board of Trustees to appoint a Board of Architectural Review. Article IV of that Law sets forth certain standards to be used in reviewing applications for building permits. Furthermore, it says the Board of Architectural Review shall be guided in its determination by the historical features of certain areas and topographical and vegetational characteristics of the land. It is clear that preservation of historic sites and conservation of the natural resources are a chief goal of this Law.

Land Available for Development

The existing land use determines what land is available for development. Estates and farmlands are included in available land since they are traditionally reused for housing. Vacant land, estates and farmland each represent about one-third of the total land available for development which is 810.8 acres or half of the Village (Table 3). The "Lot Yield" for each category is the number of additional housing units that can be expected if all the land in that category is developed according to the prevailing zoning. The Land Available for Development Map shows all land that could be used for new housing.

Vacant land is divided into two subcategories. "Individual Lots" are immediately available for one housing unit to be built on them and they are too small to be further subdivided. "Subdividable Lots" are available but must first be subdivided before building can occur. One-hundred twenty-nine new dwellings could be constructed on 267.8 acres that are presently vacant. Church property which is vacant was not considered to be available vacant land.

There are 283.1 acres covered by estates and occupied parcels that can be further subdivided. This is not counting the 19.4 acres owned by estates which fall below the high water mark. Two-thirds of the estate land is along Stony Brook Harbor. Estates have been subdivided in the past and this is expected to continue, but it will take a long time and not all the estates may be subdivided.

Available farmland does not include the Perry Farm which is in the Suffolk County Farmland Preservation Program. It does include 258.1 acres which could yield an additional 99 housing units if it were all developed. Not all the farmland may be developed, but it is more likely to be developed than estates since it is usually easily developed and is available at a lower price.

The land available for development represents maximum development according to zoning. It may not be reached in the near future, but it is the potential for which Village services must be planned.

Table 3

Land Available for Development

			St	1b-						
			div	7id-						
	Indiv	vidual	al	ole						
	Lo	ots	Lots		Estates		Farmland		Total	
		Lot		Lot		Lot		Lot		Lot
Zoning	Acres	<u>Yield</u>	<u>Acres</u>	<u>Yield</u>	Acres	<u>Yield</u>	Acres	<u>Yield</u>	$\underline{\text{Acres}}$	<u>Yield</u>
2 Acre	135.4	64	97.2	36	278.4	87	253.1	95	765.9	283
1 Acre	3.5	4	31.7	25	4.7	3	1.0	4	44.9	36
Total	138.9	68	128.9	61	283.1	90	258.1	99	810.8	318

Future Population

Population growth is dependent on the amount of new housing that can be built and therefore on the land available for development. The following table shows the population growth which can be expected as certain types of available land are developed.

	Building Lots	Average Household Size	Population Increase
Vacant individual lots	68	3.2	218
Vacant subdividable lots	61	3.2	195
Estates	90	3.2	288
Subdividable farmland	99	3.2	317
Total	318	3.2	1,018

The total population increase of 1,018 represents the number of new residents which could be expected if all land available for development were to be developed residentially. This figure, in addition to the existing 1983 population of 1,037, is defined as the saturation population. If saturation were reached, the population would nearly double to

be 2,055 persons. At saturation the population density would be 806 persons per square mile which would still be considered rural. In 1983 the population density was 407 persons per square mile.

Saturation population is the population which should be planned for since it is the population current zoning will allow. As long as some estates or farmland remain in the Village, or if more land is dedicated to open space, the saturation figure will not be reached.

Subdivision Regulations

The "Amended Rules and Regulations of the Planning Board for the Subdivision and Platting of Land..." were first adopted June 9, 1954, and subsequently amended several times; the last amendment was February 5, 1983.

While the current regulations are generally satisfactory for the ordinary processing of a subdivision application and the eventual filing of a final plat with the County Clerk, the regulations are nevertheless in need of further amendment. In the Appendix there is a detailed list of some of the more pertinent items that require change, or at the very least, further consideration. However, it is felt that it would be preferable to completely revise and update the subdivision regulations. The staff bases its opinion on the desirability of revising the regulations upon the changing aspect of subdivision design, subdivision types, and environmental concern.

The revised regulations should contain a section at the very beginning that spells out the authority upon which the regulations are based. Included in this section should be a listing of the dates of any amendments. While not absolutely essential, individual sections of the

regulations should bear the date of the last revision, if any. Included in this section or immediately following it should be a statement of purpose and policy.

Definitions are a very important part of any set of subdivision regulations. The list of definitions in the current set of subdivision regulations requires expansion. Definitions such as, "plat", "preliminary plat" and "official map" as defined in Village Law should be included, as well as others.

Today, subdivisions are often divided into two classes: the major subdivision and the minor subdivision. The major subdivision requires the installation of public improvement, such as drainage and roads, and usually consists of five or more lots. A minor subdivision is one where the land is being divided into no more than five lots and does not require any public improvements. Each is handled differently and, therefore, requires different procedures. With a minor subdivision there is often no need for a preliminary map in the usual sense or for drainage and road plans. Initial requirements pertaining to the layout of a minor subdivision can be established by use of a sketch plan. The sketch plan enables the subdivider to save time and expense in reaching a general agreement with the planning board as to form, layout and objectives of the subdivision regulations. The sketch plan procedure is also helpful when considering a major subdivision.

A growing tendency in the County is for an owner of an oversized parcel on an existing filed map to subdivide the property to create one or more lots. This action, often referred to as "resubidivision" can be handled by the minor subdivision process. There should be control exercised over this type of subdivision to insure that all lots will meet requirements.

Some municipalities are now including a section in their regulations dealing with "cluster" subdivision. This section usually restates the provisions of Village Law (Section 7-738) to insure that the subdivider is fully aware of the requirements for creating a cluster subdivision. The Village can also include its requirements under which it will accept an application to cluster. These requirements can include minimum acceptable area of tract, type of dwelling, and control of open space.

The existing section on subdivision design standards should be expanded to include grading, landscaping, stormwater collection and disposal, and erosion and sediment control. Today, with the increasing realization that our petroleum resources are finite, consideration must be given to the use of alternate energy sources. One of these sources is the sun. While much needs to be done in improving the use of solar energy, all of the improvements will be worth very little if there isn't proper site planning. The basic information as to site utilization is available even though the technological aspects of the use of solar energy require improvement. To insure that solar energy can be efficiently used on a site, the subdivision regulations should contain guidelines for clearing, orientation of buildings and streets, and use of topography.

Subdivisions that are located within one mile of an airport or a nuclear power plant, within 500 feet of the shoreline or municipal boundary, or within 500 feet of a state or County road or within 500 feet of Federal, State or County properties must be referred to the County Planning Commission for review. This requirement should be stated in the subdivision regulations.

The subdivision regulations should conclude with sections on violations and Penalties, Remedies and Severability. These regulations provide a means for enforcing the regulations and also provide for the protection of the regulations against legal challenge.

Construction Specifications

Included with the subdivision materials that the staff was requested to review were the specifications for four items that pertain to road construction: base course, surface course, seal course and stone block curb. No attempt was made to review and comment on these items as construction specifications fall within the purview of the professional civil engineer.

It is not known if these specifications are the limit of the Village's site improvement specifications or are just a part of an existing set of specifications. In either case, it would be to the Village's advantage to have a complete set of up-to-date specifications to cover all site improvements that will take place within a proposed subdivision. Having such a set of specifications puts a subdivider on notice as to what is expected of him before he finalizes his plans. In addition, the specifications provide a benchmark or standard by which the Village can measure the quality of the construction that takes palce without being placed in the position of being considered arbitrary. By providing for well constructed public and site improvements when a tract is first developed, the Village will avoid placing a burden upon the future residents of the subdivision and the taxpayers of the Village. If work is done without the adherence to a standard or is done to a minimal standard, the work may have to be repaired or replaced resulting in added costs to

the community. By the same token the construction standards should not be so rigid that they are not practical from the economic point of view.

The construction specifications should include the materials of construction and the method of construction. The materials of construction would include such items as: portland cement, asphalt, topsoil, seed, etc. The methods of construction spell out how a road pavement, for example, is to be constructed. Detailed drawings, such as catch basins, should also be included as part of the specifications.

Recreation and Open Space

The Village does not maintain any public recreation areas; however, there is underwater land and wetlands in Village ownership. The upland portion amount to 10.6 acres. The Town of Smithtown maintains a small beach in the Village which is the road end of Cordwood Path. The only other active recreation is a private tennis club on Edgewood Avenue which occupies 3.5 acres.

Nature Conservancy has three preservation parcels that are wholly or partially within the Village. The total acreage within the Village is 96.6 acres. Other open space parcels are owned by the Stony Brook Foundation and Stony Brook Community Fund. The upland parcels of these groups total 32.2 acres.

The only other open space uses are three small cemetery parcels in different parts of the Village.

Public and Quasi-Public Facilities

The Village has no public buildings. The only municipal structure in the Village is the Mills Pond House on a six acre parcel that is owned by the Town of Smithtown. The Smithtown School District owns a 10.6 acre

parcel at Moriches and Fifty Acre Road. However, declining enrollment in recent years has caused the property to be declared surplus.

Other institutional holdings include occupied and vacant land of the St. James Episcopal Church with a total of 10.3 acres and two parcels totalling 8.3 acres that are owned by the United Methodist Church. The Harbor Country Day School occupies 9.9 acres between Three Sisters Road and Thompson Hill Road.

Traffic

Most of the roadways in the Village are local access streets or collector streets that have light traffic. The major exception is State Route 25A at the border of the Village. This road handles most of the through traffic between Smithtown and Stony Brook plus traffic bound for the St. James central business district. Traffic volumes on the section of 25A between Edgewood Avenue and Moriches Road have ranged between 10,000 and 12,000 vehicles on an annual average daily basis. Traffic volumes on the section between Moriches Road and the Brookhaven line has also been increasing in recent years and had a count of 13,600 in 1980. The capacity of a road of this type is in the 12-14,000 range in both directions, so there is some room for growth and the retention of freely moving traffic in the locale.

Edgewood Avenue and Moriches Road are heavily used local roads. The former is used as a Route 25A bypass around the Smithtown business district. The latter is mainly used for access between the St. James Railroad Station, shopping areas in St. James and Lake Grove, and the Village of Nissequogue. Additional growth at either end will cause traffic increases in the section of the road that is in Head-of-the-Harbor. This road also has high weekend traffic volume since it is one of the two access points to the Smithtown Town beaches.

Harbor Road is a Village collector road that can expect additional traffic but is poorly suited for an increase due to sharp curves, limited sight distances and lack of shoulders.

Other limitations on traffic include a series of poorly designed intersections such as Moriches Road, 25A and Lake Avenue. There are also poor intersections at the ends of Three Sisters Road and Harbor and Hitherbrook Roads.

Water Resources

The water resources map shows existing public water supply, depth to groundwater and groundwater contours. The census figures showed that only 93 of 235 houses in the Village are presently served by public water. The water distribution system map shows the three water suppliers to the Village. The Suffolk County Water Authority serves part of the western edge of the Village with a main on Fifty Acre Road and a 2" branch that crosses private parcels. The St. James Water District serves the Route 25A corridor from Edgewood Avenue to Three Sisters Road. Water service is available to the parts of the Village that adjoin the unincorporated area of St. James. The Stony Brook Water District supplies water to the Pond Woods subdivision in the eastern portion of the Village.

There are only about 25 lots of less than 2 acres that are located outside of the water service areas. Most of the small lots in the Village have been incorporated into the aforementioned public water areas.

The areas where the depth to groundwater is less than three feet occur mainly along the shoreline with an isolated area adjacent to the Mill Pond and the intersection of 25A and Mills Pond Road. The groundwater contours are represented at five foot intervals. Groundwater flows mainly from south to north in this area and generally flows perpendicular to the contours. A major portion of the Village is in a shallow discharge zone with the remainder in a deep aquifer recharge zone.

Development within the shallow discharge zone will have the greatest impact upon surface water. Fieldwork has indicated that subsurface flow from upland areas to areas adjacent to the Harbor has been quite high.

Development within the deep aquifer recharge zone will have greatest affect on groundwater quality. Impacts upon existing water supply wells depend upon the type of activities (farming, residential, etc.) taking place in the area in conjunction with the direction of groundwater flow.

Natural Resources

A natural resources inventory was prepared to identify significant vegetation types and other resources in undeveloped areas. The vegetation types identified include: Wetlands, Forest and Old Field. Other resources include: Prime Wildlife Areas and Farmlands. All are shown on the Natural Resources Map, which was prepared using 1980 aerial photographs.

Wetlands

The source of the wetlands information is the New York State Tidal Wetlands Map. The majority of the wetlands are in the saltwater wetlands category with one small freshwater wetland.

The saltwater wetlands are comprised of two vegetation types in this area:

- IM Intertidal Marsh

This is the area generally lying between the daily tides.

It is dominated by smooth cord grass, which is biologically very productive.

- HM High Marsh

This wetland zone is generally above the daily tidal flow and is flooded only about 10 days out of the month.

It is also flooded by storm tides in this area. High marsh is dominated by salt hay, spike grass, and less vigorous, smooth cord grass. It is moderately productive, has value for wildlife, and forms an important buffer between uplands

The freshwater wetland is located at the southern tip of Stony

Brook Harbor, where Harbor Road curves and continues north. This freshwater wetland includes one vegetation type:

- FM Coastal Fresh Wetlands

and estuarine waters.

These are uncommon areas in New York and are found mostly where freshwater runoff is backed up by daily tides. They are usually bordered by rushes, cattails and brackish water cordgrass, as well as by pickerel weed and marsh roses. This type of wetland is highly productive and has extremely high value for wildlife.

Development near wetlands should be minimized in order to avoid increased sedimentation and a decrease of wetlands species distribution and acreage. Harbor dredging in certain locations should also be minimized to avoid loss of wetland acreage. Forest

The forested areas were mapped through aerial photographic interpretation. Although a site may generally be classifed as developed, any forested area within that site was mapped (i.e., in a residential area, only the house, lawn and driveway are indicated as developed), if the majority of the site is forested. Most of the land within the Village is partially forested. There are several large completely forested areas within the Village: the southern Nature Conservancy site (37.5 acres); the northeastern Nature Conservancy site (54.8 acres) and other undeveloped subdivided and unsubdivided parcels. Forested areas located on Carver soils should remain protected permitting only minimal disturbance due to the difficulty of establishing lawns on these soils.

Old Field

These lands were once used for agriculture or other purposes. Old fields are characterized by abandoned farm or nursery fields with various stages of successional vegetation. The first stages of growth include various species of grasses, red cedars, small shrubs or scattered young deciduous trees. Over time medium to large shrubs and larger trees will predominate with the remainder in small grassy open areas. Eventually, the area will become a secondary growth woodland. Large tracts of old field are located in the northern section of the Village with small plots dispersed throughout the Village.

The soils underlying old fields are usually moderately fertile having a high percentage of organic matter. The soils are usually not droughty. They are well suited to meadow grassland, natural areas and occasionally the establishment of lawns. However, lawn areas should be limited in order to minimize nitrate loadings to ground and surface waters.

Prime Wildlife Areas

Prime wildlife areas (PWA) as delineated on the Natural Resources

Map were derived from a study prepared by the New York State Department

of Environmental Conservation (NYSDEC) - Division of Fish and Wildlife
entitled "Areas of Particular Concern to the Preservation and Maintenance

of Fish and Wildlife Populations in the Coastal Zone of Long Island"

(May 1976). These PWA's should be used by planners and developers as a

"red flag" to alert them to areas of significance as wildlife habitats.

As per the study entitled "Stony Brook Harbor: An Interdisciplinary Analysis" by S. K. Robbins, several species of waterfowl and shorebirds inhabit the Stony Brook Harbor area. The area is one segment of the route which migratory birds travel in their annual flight from the winter feeding grounds in the south to their summer nesting grounds in the north. Local residents listed the sightings of twenty-one species which visit the area, three of which stay to breed. Some of these species include: large flocks of Great Scaup and Lesser Scaup and smaller flocks of American Widgeon, Baldpate, Red-breasted Merganser, Bufflehead, Mallard, Black Duck and Canada Goose. In addition, several species of shorebirds rely on the fish, shellfish and crustacians which inhabit the creeks and mudflats for survival. The species of shorebirds include: herons, egrets, rails, sandpipers and terns. The Great Blue Herons and Clapper Rails remain all year round. The marshes provide them with nesting sites and cover. Undeveloped uplands also provide nesting sites for certain species within close proximity to feeding areas.

Farmlands

Farmlands, both active and inactive, are located in the northeastern and southern sections of the Village. The agricultural lands comprise

421 acres or 25.8% of the 1,632 acres within the Village. The farmland soils in the southern portion of the Village are Haven Soils (0-2% slopes) which are suitable for agriculture and will produce high yields. The soils underlying farmlands in the northeastern portion of the Village are Riverhead soils (3-8% slopes) which generally produce slightly lower yields.

Soils

The Soils Map outlines three significant soil types for resource management, Carver soils which should not be developed and Haven and Riverhead soils which should remain as farm soils or should otherwise be conserved. While the Haven and Riverhead soils are most suitable for lawns, all future development should have a minimal amount of lawn area due to the potential impact of lawn fertilizers on groundwater and surface water quality. The areas indicated in white on the Soils Map represent various soil types, generally sandy soils. The natural resources and physical characteristics of these areas take precedence over the soil characteristics. See the Natural Resources Map and other maps depicting physical characteristics, and the Recommendations Map for preservation and development guidelines.

Carver soils are comprised of deep excessively drained, coarse textured soils. These soils have a very low moisture capacity and very low natural fertility. Permeability is rapid throughout. The two subsets of this soil type within the Village are CpC and CpE designations at three to fifteen percent and fifteen to thirty-five percent slopes respectively. Due to droughtyness and steep slopes associated with these soils, they should remain in natural vegetation.

Riverhead soils consist of deep, well-drained, moderately coarse textured soils formed in a mantle of sandy loam or fine sandy loam over thick layers of coarse sand and gravel. These soils have a moderate to high available moisture capacity and internal drainage is good. Permeability is moderately rapid in the surface layer and subsoil layer and very rapid in the substratum. Natural fertility is moderate requiring application of lime and fertilizer to obtain the best results. The two subsets of this designation which occur within the Village are RdA and RdB which contain zero to three percent and three to eight percent slopes respectively. The steeper slopes at 3% to 8% present a slight to moderate limitation to the development of homes, trails or other similar development.

Haven soils consist of deep, well-drained medium textured soils formed in a loamy or silty mantle over stratified coarse sand and gravel. These soils have a high to moderate available moisture capacity and internal drainage is good. Permeability is moderate in the upper layers and rapid in the substratum. The two subsets, HaA and HaB, contain zero to two percent and two to six percent slopes respectively. These soils are the most fertile and productive within the Village. These soils require the least amount of fertilization and irrigation for lawns, crops and landscaping.

Watershed Analysis

The Watershed Analysis Map delineates those areas that require the most protection to minimize impacts upon the Harbor, wetlands and streams. The map depicts the hydrologic characteristics of the site including the natural drainage system, major swales, direction of stormwater movement, steep slopes adjacent to the harbor (critical watershed)

the depth to the seasonal high water table less than three feet and the one-hundred year floodplain. Major swales are the main collectors of upland stormwater runoff, are subject to flooding and may be characterized by a low depth to seasonal high table. Roadways adjacent to major swales and surface waters or wetlands that slope towards the Harbor may increase the rate of stormwater flow into the Harbor. The one-hundred year floodplain is located on shallow sloped areas adjacent to the water and is characterized by wetlands and minimum depths to the water table. Septic systems should not be sited in these areas because flooding and a high water table will cause septic systems to malfunction. The pollutants discharged in the critical watershed area have a greater probability of reaching the Harbor. Development should be limited within the primary watershed boundary to minimize pollutant (including sediment) loadings to the Harbor.

Developmental Constraints

The Developmental Constraints Map identifies those areas where, if development was to occur, there would be constraints due to the nature of the resource. Developmental constraint areas include: wetlands, beach, bluff, depth to seasonal high water table less than 3 feet, the one-hundred year floodplain and slopes greater than 15%.

Wetlands are highly productive ecosystems, provide significant habitats, trap nutrients and other pollutants and minimize wave action. Development adjacent to these wetlands will result in the increase of stormwater runoff, and pollutant loadings to wetlands. Environmental impacts may include loss of wetland acreage and productivity.

The beach is unsuitable for development due to its constantly changing topography and width. Interference by man can accelerate these processes causing loss of the beach area.

Bluffs are constantly being subjected to wave action, stormwater runoff and groundwater seepage. Development adjacent to bluff areas requiring grading, removal of vegetation, siting of buildings, roads or parking lots, will contribute additional stormwater runoff to the area eroding the edge of the bluff and face. Excessive runoff will eventually cause bluff slump and collapse.

Developmental constraints also include areas with a depth to seasonal high water table less than three feet and the one-hundred year floodplain (See Watershed Analysis).

Slopes greater than 15% definitely have constraints to development. Development in these steep slope areas may not only impact the resources but also the development itself. Direct disturbance of slopes cause the eventual loss of stabilizing vegetation due to the increased volume of stormwater runoff. Impacts upon the development centers mainly on the need to control the erosion of unstable soils creating an increase in development costs.

Land Suitability

The Land Suitability Map synthesizes all of the categories of sensitive areas as identified on the natural resources, soils and watershed maps. Additional categories include historical areas, Nature Conservancy holdings and the Perry Farm.

The map designates lands suitable for preservation or conservation based upon the sensitivity of the resource. The area that remains white identifies those sites most suitable for development.

The conservation designation includes: Carver soils, historical areas, prime soil areas, the Perry Farm, Nature Conservancy holdings, prime wildlife areas, depth to groundwater less than 3 feet, all lands within 100 feet of wetlands and all lands with 100 feet of surface waters. Development in these areas should only be permitted in conjunction with performance standards. The degree of development that the resource can sustain varies with its degree of sensitivity. Areas within 100 feet of surface waters or wetlands should not be a source of increased stormwater runoff, nutrients, contaminants, or sedimentation to surface waters or wetlands. Actions that may be permitted in these areas include: thinning of trees, development of trails or boardwalks and the planting of natural vegetation.

The preservation designation includes bluffs, major swales, slopes greater than 15%, wetlands, beach and all land within the one-hundred year floodplain. Disturbance in these areas should either be completely prohibited or limited to 1% of the designated area. These areas should not be a source of pollutant loadings and no disturbance or removal of natural vegetation should be allowed. Where the one-hundred year floodplain includes the areas within 100 feet of wetlands and surface waters, the stricter designation, preservation, should prevail.

Recommendations for the Management and Site Development of the Natural Resource Areas

The natural resources within the Village of Head of the Harbor have been identified through mapping. Developmental constraints and suitability for development has been determined for the variety of resources based upon sensitivity. Recommendations for management of natural resources will provide Village residents and developers with guidelines as to the type and degree of development, if any, that is suitable for a specific area. The Recommendation Map shows land that should be protected by acquisition of development controls.

The following recommendations for the management of sensitive areas were derived from the Land Capability system: 1

Village Watershed Management

One goal of watershed management is to maintain the valuable functions of the watershed while allowing development to occur. Realization of this goal depends upon the successful achievement of the objectives listed below. Two major general objectives for watershed management are:

- o Minimize pollutants reaching surface waters and groundwater.
- o Maintain the natural hydrologic system.

The general techniques to achieve these goals should apply to all new site development within the Village. They are listed by category below:

- o Use stormwater control measures such as sediment traps, leaching pools and recharge basins to prevent the direct discharges of stormwater or sediments into wetlands or surface waters.
- o Minimize the contact of stormwater runoff with the soils by recharging stormwater as close as possible to the source. This will aid in minimizing soil erosion and sedimentation and the subsequent clogging of stormwater drainage systems.

As per the Coastal Zone Management Plan developed by the Long Island Regional Planning Board, a land capability system was developed with capability unit #1 containing areas which are the least sensitive as compared to capability #IV, the most sensitive.

Major Swales

Swales should be maintained in their natural state, with no disturbance of the natural vegetation and soils in the swales nor altertion of the surface hydrology.

- o Do not increase stormwater runoff into and from swales.
- o Do not alter the slope (filling, cutting) of swales.
- o Direct discharge of stormwater runoff from structures, buildings, paved areas into swales should not be permitted.
- o Do not dump brush into swales.
- o Do not block swales except in cases of hardship where an existing structure would be undermined or inundated due to the
 stormwater runoff and sediment load carried in stormwater runoff.

Steep Slopes

Slope management should result in a stable vegetated slope during site construction and operational phases of development.

Density controls are an important means of minimizing impacts on slopes. However, slope density standards alone are not sufficient for erosion management because these controls do not address areas that should be preserved or the conditions that influence erosion such as soil—erosion potential, methods of grading, site development, use of natural vegation and slope stabilization. Generally, the soils on steep slopes have a lower potential for erosion than the richer soils higher in clay, silt, and organic material on gentle slopes. Recommended site development erosion control techniques are listed below.

- o Site structures so as to minimize alterations in grade on slopes. This does not necessarily mean building on the gentler slopes of a site. Very effective methods of slope stabilization can result from building on the steepest portion of the slope and using the structure as a retaining wall.
- Do not site roads and driveways on slopes more than 10%.
- o The majority of the land should remain in natural vegetation.
- o Disturbed areas should be protected from stormwater runoff and the site topsoil should be stockpiled.
- o Disturbed soils should be revegetated or seeded as soon as possible before the certificate of occupancy is given.
- o Prevent development on slopes within the preservation zone or primary watershed area.
- o A site development plan should be approved before any site clearing or grading is allowed.
- o All site plans should indicate future grades, the edge of vegetation disturbance and stormwater runoff and erosion.
- o Site grading should not result in the disturbance of stable slopes or structures on adjacent properties, and should not result in the accumulation of sediments on adjacent properties or in the primary watershed area.
- o The natural vegetation on steep slopes directly bordering surface waters should not be disturbed.
- o Trails should not be a source of sediment to surface waters or wetlands.
- o Paths leading to the water should be kept to a minimum. All paths should be stabilized.

Depth to Seasonal High Water Table Less than 3 Feet

These areas are designated as conservation areas. No development should be permitted due to the high probability of failure of onsite systems and frequent flooding of basements in these areas.

- o Maintain area in natural vegetation.
- o Additional stormwater should not be directed into these areas.
- o There should be no alteration of the natural slopes.

Prime Farm Soils

- o Conserve prime farm soils for present and future agricultural use. Whenever prime farm soils occur on sites to be developed, the prime farm soils should be stockpiled and used for top soil on other sites. The physical and biological characteristics of the prime soil should not be altered.
- o Maintain existing woodlands to provide a buffer zone between farmland and development. Woodlands are effective in minimizing wind-caused erosion and in the stabilization of land forms.

Prime Wildlife Areas

Minimize disturbance of Prime Wildlife habitats by following these recommendations:

- o Maintain as much of the property in natural vegetation as possible.

 Natural vegetation should be contiguous with natural vegetation on adjoining properties.
- o Maintain cover for wildlife in natural areas; do not remove shrubs and other understory vegetation.
- o Thin trees to allow sunlight to reach forest floor.
- o Thin out dead or diseased wood on trees. Leave fallen wood.
- o Maintain or provide a mixture of vegetation species within the Village.

- o Plant vegetation that provides either food source or cover where existing vegetation has been removed. Do not plant crops or exotic species where planting and fertilization will affect groundwater or surface water quality.
- o Replant disturbed areas with vegetation native to Long Island.
- o Minimize lawn areas. Plant a portion of the disturbed site area in meadow grass to provide food diversity.
- o Maintain existing sources of water supply and quality of waters for wildlife.

Bluffs

o Site all new development a sufficient distance from the top of the bluff so that natural processes acting upon the bluff will not endanger the structure, and so that the impacts upon the bluff due to site disturbances can be minimized. The minimum setback for structures should be based upon the erosional rate of the bluff and also upon the amount of land needed for the structure to remain unaffected by bluff recession for a period of 50 years. Thus, if the erosional rate is 2 feet per year and the setback is 100 feet, the structure should remain unaffected for 50 years. The land disturbance within the setback zone should be limited to 5% of the area.

- o Do not allow stormwater from developed portions of the property to flow across the surface of the land to the bluff face. If the natural slope of the land is away from the bluff face, the slope should not be altered.
- o Allow an adequate distance from the bluff face in natural vegetation to trap stormwater and to stabilize soils.
- o Do not recharge stormwater in a quantity or location where surface runoff, subsurface or groundwater flow would undermine the bluff face.
- o Minimize impermeable paving. Use trap rock or native gravel for driveways and permeable paving for other outdoor surfaces. Brick, flagstones and belgium block on sand is a good alternative paving surface for slopes less than 2%.
- o Locate roads and driveways in such a manner that no stormwater from the road will reach the bluff face or the beach below.
- o Construct a berm parallel to the bluff face to trap stormwater from overland flow and to allow for percolation into the soils.

 Do not allow stormwater trapped by berm flow to reach bluff face of an adjacent property.
- o Locate septic system leaching pools as far as possible from the face of the bluff. The underlying surficial material should not be confined by a claylense or other impermeable layer.
- o Cover disturbed soil areas with vegetation suitable for bluff locations.

100 Year Flood Plain

O All land within the 100 year flood plain should not be cleared or developed.

Protection of Surface Waters

Direct surface runoff from new development should not enter surface waters directly. Stormwater pollutants should be attenuated by means of filtration, holding ponds and sedimentation basins. Water discharged from these basins should be of acceptable quality before discharge into surface waters.

Protection of Tidal Wetlands (Marshes)

Protect wetlands from increased sedimentation and nutrient loading by preventing the discharge of stormwater runoff and sedimentation into the wetland.

- o Do not remove marsh vegetation.
- o Do not dispose of material removed from roads to surfaces where they will be transported by stormwater to wetlands or to the Harbor.
- o Dredging should not result in impact on tidal wetlands. Maintain subsurface sediments to provide structural support for the soils of the marsh. Do not alter the elevation of the marsh.
- o Do not deposit any material onto wetlands.
- o Do not discharge collected stormwater runoff directly onto the marsh. Discharge stormwater upland to allow for the filtering action of soils and for groundwater recharge.
- o If bulkheading is required adjacent to the wetlands, locate the bulkhead upland of highest yearly tide level.
- o Do not allow herbicides, insecticides and other organic compounds to reach the marsh.
- o Do not permit construction within 100 feet of the upland boundary of a tidal wetland (this includes the introduction of impervious surfaces, utility equipment, roads, etc.).

Other Recommendations

Most of the natural resources within the V illage can be protected by means of the guidelines in the previous section. However, there is one area in the Village, along Harbor Hill Road, where there is extensive flooding and runoff into the Harbor from the steep slopes adjacent to the road. The wetlands between the road and the Harbor act as a filter for the runoff and should be maintained. Therefore, Village acquisition of the 2.3 acre parcel at Harbor Hill Road and Harbor Road is recommended.

An overall capital improvement program for roads such as the above with either poor surface and inadequate drainage is necessary. The Recommendations Map shows Harbor Road, Harbor Hill Road and Taylor Lane, which act as a collector system, that should have improvements in paving, drainage and sight distances at intersections and other access points. Local access streets with very poor drainage and surface conditions are Rhododendron Road, Shep Jones Lane, Cordwood Path, Pin Oak Lane and Branglebrink Road. Even though some of the roads are private, they should eventually be included in the Village road system since further deterioration could lead to problems for emergency vehicles gaining access to existing or new homes. Any new roads whether public or private should be subject to the same standards as referred to in the Construction Specifications section.

The Recommendations Map also shows three intersections within the Village that should be included in a capital improvement program. The Route 25A - Moriches Road intersection has poor alignment and is being studied by the Town of Smithtown in conjunction with a St. James business

district improvement. The other two intersections are internal Village problems at Hitherbrook Road and Harbor Road, and at Three Sisters Road and Bacon Road. Poor sight distances and alignments should be improved as additional development takes place on adjacent parcels.

The public and quasi-public land in the vicinity of Shep Jones

Lane forms a farmland belt at the eastern edge of the Village. Some

additions can be made through acquisition or density modifications.

Some of the farmland in the vicinity of Fifty Acre Road could be preserved to form an open space area at the west end of the Village. The

clustering of any new houses in this area on a smaller portion of each

parcel could result in the retention of at least half of the land that

is in the best soil category for agricultural use.

One area in the Village that can accommodate additional development based on environmental factors, road access, access to transit, public water and proximity to stores, is the property between Moriches Road and the Long Island Railroad just west of Lake Avenue. In order to maintain the open space in the historic area along North Country Road, it would be desirable to transfer the density to the property immediately adjacent to the St. James railroad station. Town houses on this parcel could be balanced against a permanent open space corridor or public use area on North Country Road.

The Village should require that any land area, where vegetation has been removed, be planted and stabilized using vegetation that will not require fertilization after planting. All hillside areas that drain directly to roads draining to the Harbor should be planted with native trees and shrubs and with native or other groundcovers.

Appendix

Incorporated Village of Head of the Harbor, Suffolk County, New York - Amended Rules and Regulations of the Planning Board for the Subdivision and Platting of Land Adopted...

Comments on existing subdivision regulations and suggested changes:

Title Page

- The title of the subdivision regulations should be as simple as possible; such as, "Subdivision Regulations for the Village of Head of the Harbor, Suffolk County, New York." This will allow easy citing of the regulations in correspondence and other documents. The history of the regulations should be included in the text of the regulations in a section that states the authority for the regulations.

Page 1 - Para. 1

- From a practical point of view, it would be better to limit any site work that is done for a proposed subdivision to that required for tests and rough stakeout of roads until final approval has been given to the proposed subdivision and the required bonds have been obtained. There is always the possibility that some subdivider may try to force changes in the layout on the basis of what has been cleared and graded or the subdivider may decide to abandon the project after roads have been cut through wooded areas.

Page 1 - Para. 3

- Unless the subdiver is a licensed land surveyor, this section may be in conflict with State Education Law as only a lincensed land surveyor may stake out property lines. It would be better if line two of this paragraph read "the subdivider shall have stakes placed at the intersection..."

Page 3 - No. 6

- Local service street - This type of street, a marginal road, is not considered appropriate in a Village such as Head of the Harbor that desires to retain its unique rural character. This type of street is more appropriate in a high density area where it is desirous to minimize conflicts between individual access to each house and the traffic flow on an arterial road. This type of street is less favored today because its use often results in more traffic problems than is alleviated.

Page 3 - No. 11

- Agricultural lands should not be exempt from subdivision review. It should be ascertained that all oversized plots that are being created (an oversized plot is one that exceeds the minimum lot size

Appendix (Cont/d)

Page 3 - No. 11 (Cont/d)

- required by zoning by 200%) will conform to the master plan or official map, if existing, and are capable of being subdivided in the future without creating awkward shaped or unbuildable plots. It is also possible that the exemption of agricultural lands from the subdivision review and approval process may be in violation of Section 335, Real Property Law. Section 335 requires that plats of all subdivisions of land be filed with the County Clerk.

Page 3 - No. 12

- Reference to another set of regulations, in this case Local Law No. 1 - 1974, is awkward and places a burden on the subdivider. All definitions should be located in one place in the subdivision regulations.

Page 4 - Sec. 2, No. 2

- In the County of Suffolk the Suffolk County Department of Health Services is the agency that reviews and approves the proposed water supply and waste disposal for a proposed subdivision, not the New York State Department of Health.

It is our understanding of Village Law that a planning board has a maximum of 60 days in which to act upon a preliminary plat after the subdivider files the map with the planning board. The planning board may either approve the map, approve the map subject to modifications, or disapprove the proposed map. When a planning board disapproves a preliminary map, the reasons for the disapproval must be clearly stated in the records of the planning board. There does not appear to be any provision in Village Law that allows the planning board to revoke its conditional approval.

Page 4 - Sec. 2, No. 3

- Conditional approval of a preliminary plat is effective for only six months. If the application for the final plat is not filed within six months of the conditional approval of preliminary plat, the planning board can refuse to approve the final plat.

Page 4 - Sec. 3, No. 1

- Should read "Official Map" not "Base Map"

Page 4 - Sec. 3, No. 2

- Plans for streets and area must be clearly indicated on the Official Map, in the Master Plan or in a special planning study. These plans must have been formally adopted by the planning board and village board to be effective. These plans cannot be arbitrarily imposed upon the subdivider when he decides to subdivide his land.

Appendix (Cont/d)

Page 4 - Sec. 4 - Street pavement width should be established on the basis of the traffic volume that the road will carry.

Page 6 - g (1) - The last line of this section should be corrected as it calls for a service road (marginal road) to be used. Refer to comments on definition of service road.

Page 6 - g

- To eliminate the possibility of an attempt to divide an oversized lot into two lots where one or both lots will be substandard, a restriction should be placed upon lot size in a proposed subdivision that limits the lot to 150% of that required by the zoning ordinance. For example, if the zoning requires 40,000 square feet as the minimum area, then the maximum lot area permitted is 60,000 square feet. This will necessitate not only inclusion in the subdivision regulation, but a change in the zoning ordinance as well.

Another requirement, one that can be put into the zoning ordinance, is the "large lot easement" provision. Where oversized lots will be created, the subdivider will have to obtain the permission of the village board. If permission of the village board is obtained, covenants and restrictions are filed with the County Clerk that will prohibit future subdivision.

Page 6 - Sec. 5, - It is more advantageous to a municipality if all work is bonded. Bonding will help to insure completion of the work. If not bonded, the municipality can be left with an unfinished subdivision and an unfiled map.

Page 6 - Sec. 6,

The language of this sentence may need modification as to who may prepare a preliminary map and should be checked out. The final map that is filed in the County Clerk's office must be signed by a licensed land surveyor.

Page 6 - Sec. 6, - The scale of the map should not be specified. How-No. 2 ever, there is nothing wrong in requiring a minimum map scale, for example, 1" = 100 feet.

Page 7 - 1

- The contour interval should be established on the basis of the scale of the map. For example, one foot contours are often used where the terrain is flat; two foot contours in areas where there are moderate slopes, and where there are steep slopes a five foot contour interval is used.

Appendix (Cont/d)

Page 8 - v	- The meaning of this statement is not clear. Per- haps what is intended is that no lot or lot line is to be changed without approval of the planning board to avoid the selling off of a part of a lot.
Page 8 - 4(a)	- It is the opinion of the staff that a planning board does not have the authority to waive the requirements of Section 335, Real Property Law. This law requires that a map of any subdivision is to be filed in the County Clerk's office.
	Village Law allows the planning board to waive or modify certain provisions of the subdivision requirements where certain conditions find that the provisions are not in the interest of public health, safety and general welfare.
Page 8 - 7(a)	- The scale of the map should not be established except for a minimum acceptable scale. The scale of the map should be established by the surveyor to insure that all bearings and distances and other pertinent data are clearly shown and easily readable.
Page 10 - 8(2)	- "Geodetic" refers to geodesy which is beyond the scope of the ordinary land survey for subdivision.
Page 10 - 9(5)	- The staff has commented on this previously. All work should be bonded.
Page 16 - Para. 3	- The intent and purpose of this statement should be clarified.
Page 16 - Para. 6	- The staff does not understand the meaning and intent of this statement.

